

with varying intensity from about 7.40 p. m. until after midnight. A corona appeared at 8.45 p. m. and at 11.30 p. m. a second halo appeared making three concentric circles about the moon. The diameter of the outer halo was 45° and of the inner $11\frac{1}{4}^\circ$, while the corona was about twice the diameter of the moon. A brilliant meteor was observed at several places in middle and western Tennessee on the night of April 23 between 8 and 9 o'clock.

FORESTS AND FLOODS.

By J. WARREN SMITH, Section Director.

An article recently appeared in the Ohio State Journal relative to floods in Europe, and in it the statement was made that there had been excessive rains and serious floods in Europe since the spring of 1909, and the surprising theory was advanced that the cause is the deforestation in the United States.

The theory is so ridiculous and so far beyond reason that no person would give it a second thought if it were not for the scientific standing of its author, Prof. Camille Flammarion. I will quote the following extract, which is itself a quotation from Flammarion:

Deforestation in America is chiefly responsible, for whenever the barometric pressure is low we are subject to west winds which blow direct from America across the Atlantic, practically following the course of the Gulf Stream. These winds collect vapors on the way and these, when coming in contact with our damp and chilly land, condense, thus causing our continuous downpour.

These winds have always existed, but it is only of late that we have noticed them in Europe. Why only of late? The reason is to be found in the wholesale deforestation in the United States.

It is admitted that the west winds, as a rule, touch the earth in America, and in times past the luxurious vegetation of that country served as a very effective obstruction to their violence, in many cases arresting them, and always retarding them. Now nothing stands in their way and that is why Europe suffers.

A very pretty theory but based on a statement that has no foundation in fact; that is, that wet seasons and floods are entirely new for Europe, which of course is not true.

In a book entitled "Record of Seasons, Prices, and Phenomena in the British Isles," Mr. T. H. Barker, a fellow of the Royal Meteorological Society, has collected

a record of unusual weather conditions and effects in England since 720 B. C.

There are only two entries for the period preceding the Christian era, but beginning about 50 A. D. the record is very complete.

It appears to the author that the English climate was always much the same as at present. Periods of famine have occurred at various times and were invariably caused by wet and cold seasons.

One of these lasted through nearly the whole of Edward II's reign, when for 20 years or more, incessant rains were noted to have fallen every summer, with only two or three exceptions. At that time the people were dependent on their home produce, and their sufferings were very great, and the death of the cattle and sheep was a national calamity.

Fifty years later corn was dear for some years owing to the wet seasons. From 1542 there was a continuation of wet summers and bad crops of corn till the end of the century, with occasionally a more fruitful year than its neighbors.

In 1692 commenced a series of extraordinarily bad seasons. The author says they have been traditionally referred to as the barren years at the close of the seventeenth century.

Again in 1773 he quotes from Gilbert White: "Such a run of wet seasons as we have had for the last 10 or 11 years would have produced a famine a century or two ago," meaning of course that at this time transportation facilities had improved to such an extent that foodstuffs could be imported from the Continent, which was not true in the earlier times.

Another cycle of bad seasons commenced in 1792 and continued with few intermissions up to 1817. After that time the wet and dry years were evenly balanced until 1875 when another wet period began, through which the author states they were passing in 1883, when the book was published.

His record of great floods began with the year 353 A. D. Some were due to the melting of heavy snow and some to heavy rains.

The forestry problem in the United States is an important one, and it should not be made to bear the burden of such unreasonable theories as that given above.